

Pharmacy NewsCapsule

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Medication Sample Challenges

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Medication sampling is one way that pharmaceutical manufacturers promote medications. Studies show that if physicians have access to sample medications they often will provide the samples to patients. Subsequently, if the drug is effective, the physician will continue prescribing the medication after the sample supply is depleted.

On the surface, medication samples appear to be a "good thing." Patients are able to get a free supply of the drug that allows them to determine if the drug is effective or if it will cause adverse effects prior to having to pay for the drug.

Problems related to medication samples can include the following: 1) sample medications tend to be brand drugs that are more expensive than generic drugs, 2) sample medications may not be controlled as appropriately as other prescription medications, and 3) sample medications may influence prescribing habits in a negative way.

Some potential good outcomes of sample medication use is that it can save some consumers money and samples can provide prescribing and outcome experience to physicians. Also, medication samples allow a patient a chance to "test drive" the medication instead of purchasing an expensive medication only to find out they can not tolerate the medication.

Cont page 3

Tightrope Walking to Sleep

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Insomnia combined with the medications used to treat insomnia can feel like walking a tightrope, especially when treating the elderly.

On one end of the rope, insomnia can impair physical, social, and cognitive function. This can lead to a significant strain on an elderly persons overall general well being.

The other end of the tightrope is the medications. Many of the medications used to treat insomnia carry significant side effects. Some of these side effects can also affect physical, social, and cognitive functions.

Therefore, insomnia and treatment is a tightrope that needs to be walked carefully. Proper assessment and work-up should be the cornerstone to treating insomnia. Assessments can determine if the insomnia is acute, recurring or chronic.

Assessments can also identify external factors as causes of insomnia. For example, caffeine, alcohol and many medications can cause insomnia. Sometimes even withdrawing medication can cause transient insomnia. Very often, adding another medication is not a good solution. The assessment of all the facts are critical in developing a treatment plan.

Proper assessments should lead to proper treatments. Guiding principles for insomnia treatment can include pharmacological treatments as well as basic sleep hygiene and behavioral interventions.

Sleep hygiene programs usually involve waking up at the same time each day, maximizing daily physical activity and light exposure, limiting stimulant medications, minimize napping, increasing comfort measures in the sleep area and only going to bed when sleepy.

Cont page 3

INSIDE THIS ISSUE

- 1 Medication Sample Challenges
- 1 Tightrope Walking to Sleep?
- 2 New Drugs
- 2 Drugs in Focus
- 2 Med Error Corner
- 4 Consultants Corner

New Drugs

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Brand Name	Generic Name	Use
Metadate CD	Methylphenidate	Extended release capsule for attention deficit disorder.
Valcyt	Valganciclovir	Tablet for cytomegalovirus retinitis in patients with AIDS
Duoneb	Albuterol/ ipratropium	Solution for inhalation for bronchospasm in COPD
Reminyl	Galantamine	Tablet for moderate dementia of Alzheimer's type.

Med Error Corner

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In 1999 the Online Survey Certification and Reporting system (OSCAR) indicated that in long term care facilities the medication error rate was only 1.1% nationally. If this statistic is viewed in isolation, it appears nursing homes are doing a good job with medication errors.

However, let's look at the data that goes into OSCAR. The data from nursing home surveyors reflects only a very small snap shot of what really occurs related to medication errors. Other data sources suggest that an average nursing home spends two dollars fixing a medication related problem for every dollar spent on the prescribed medication itself. This is after pharmacists catch and save over 43% of the potential costs of all errors (Bootman, 1995.)

The information suggests that many of the medication errors that occur in nursing homes are related to improper medication administration.

So what are some of the things we can do to help solve these medication errors? One avenue is to employ more qualified staff and provide continuous training. As this discussion could take up an entire newsletter, let's look at a couple solutions that may decrease the burden on the current staff: administering drugs when there is more staff or spreading out administration times. For example, some once-a-day medications like vitamins may be given in the afternoon.

Continued Page 4

Focus Drug of the Month

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Glaucoma Medications

The FDA has recently approved three new eye drops for glaucoma. They are Travatan® (travoprost), Lumigan® (bimatoprost) and Alphagan P® (brimonidine). The last medication Alphagan P is basically a reformulation of the original Alphagan that is currently available. Alphagan P is in a lower strength and also contains a different preservative to control some of the side effects that occurred with the original Alphagan.

The other two medications, Travatan® and Lumigan®, are currently considered second line medications for those individuals who are intolerant or inadequately controlled on other glaucoma agents. They are considered second line because their side effects include gradual darkening of eye color, darkening of eyelid skin and increased darkness, thickness and number of eyelashes. The long-term significance of these side effects is still being studied.

The eye drops for glaucoma are just three of the many eye drops that are available to patients. Very often eye drops are the forgotten or overlooked medication. However, many eye drops carry significant side effects that patients and caregivers need to be aware of and know what to do if they should occur. For example some eye drops may cause blurry vision which could lead to a patient falling. Other medications may change the color of an eye.

Continued on page 3

From page 1-Tightrope Walking to Sleep

Some behavior interventions can include sleep restriction. This means limiting time in bed to sleep times only. Other behavior interventions include cognitive therapy or education about insomnia that address beliefs or attitudes about sleep. Behavior therapy can also include stimulus reduction and relaxation therapy. Behavior therapy can be accomplished by identifying those occurrences that cause a person to wake up from sleep and changing or removing that stimulus. Relaxation can include finding those occurrences that alleviate interruptions and relax an individual.

Pharmaceutical interventions should involve medications that are shorter acting. This should eliminate the morning “hangover” where the drug may cause drowsiness late into the morning. Typically medications should be started in the elderly at the least effective dose. In some instances medications should be tapered before they are discontinued.

Sometimes insomnia is the result or symptom of some other disease. A good assessment should determine this fact. Subsequent treatment of the underlying disease should lead to the reduction of insomnia. (If insomnia does not decrease, the treatment for the underlying disease should be evaluated.) A classic example is a person who has pain. Very often individuals who have pain may also have insomnia. If the pain can be adequately treated, frequently the insomnia will go away and medication for the insomnia can be avoided.

In summary, when insomnia is being treated in some facilities such as nursing homes, there are regulations that shall be recognized. The regulations should not prohibit the use of medications to treat insomnia but should assist in assuring the proper assessment and treatment are occurring. The regulations should provide a safety net.

From page 1-Medication Sample Challenges

What are some of the other problems with medication samples? Very often federal and state regulations for health care facilities do not address drug samples. Therefore by default, drug samples tend to be subject to the same storage, labeling, packaging, dispensing and record keeping requirements that pertain to all prescription medications. In some instances these requirements may not fit with the medication sampling process or may conflict with professional practice regulations.

If you have questions related to the use of medication samples, the Joint Commission on Accreditation of Healthcare Organizations does provide some guidance in the hospital accreditation standards. You may also contact the Bureau of Quality Assurance Pharmacy Practice Consultant at 608-266-5388 with your medication sample questions.

Eye color changes can be very disconcerting to an individual who may only be administering the medication to one eye.

Another forgotten issue with eye drops is proper administration, handling and storage. The eyelid can only hold one drop of medication at a time so when administering an eye drop wait between drops to allow the eye to absorb the medication. When using more than one type of medication wait 3-5 minutes between each medication.

When it comes to handling and storage, infection control is a must. Do not touch the tip of the eyedropper to the eye to maintain a clean dropper. Also be aware of the expiration dates on the products. Some eye drops must be discarded a few weeks after being removed from the sealed container in which there were originally packaged. Always ask the pharmacist or refer to the manufacturer recommendations for storage.

Eye drops are important and should not be over looked. Noncompliance or inappropriate use of the medications can lead to adverse outcomes. For example, blindness can occur if glaucoma is improperly treated. Inappropriate eye drop use can also lead to infection control issues especially in residential facilities. Other problems with eye drops can be falls, some of which can seriously affect the elderly especially if the fall results in a broken hip. Some changes in eyesight can be a side effect of other medications. Sometimes new orders for eye drops can be avoided if the drug that caused the side effect can be eliminated.

So review those eye drops.

If there are medications you would like featured here please send an email to Doug at analada@dhfs.state.wi.us

Another challenge is lack of staff training. Very often some medications now come with devices that are used to properly administer the medication. Staff who may not know exactly how to use the device take much longer to administer the medication and subsequently are more likely to have a medication error. Providing adequate training is important.

Staffing appears to be an ongoing issue. Healthcare providers need to provide current staff opportunities to become more efficient and effective. When it comes to medications, this should prompt healthcare providers to become creative with administration times and provide additional training.

Consultant's Corner

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This section is basically a miscellaneous section that will show up each issue and will contain tidbits of information, most of which will come directly from your questions. If there is a topic you want more detailed information about, please drop me an email at engleda@dhfs.state.wi.us and I'll see what I can find.

1) I am reprinting this one as I have received additional questions about grapefruit juice. What's the deal with grapefruit juice and drug interactions?

When a person takes a drug, that drug is usually metabolized or broken down in your body one way or another. These broken down parts of the drug can have no effect and are eliminated in sweat, urine or feces. In other cases, these broken down parts may have both good and bad effects on the individual. Medications can be broken down in many ways. One way is by various enzymes found in the body. One common group of enzymes you may have heard about is cytochrome P450 enzymes.

So what is the deal with grapefruit juice? Well grapefruit juice is an inhibitor of CYP3A4, a cytochrome P450 enzyme. What this means is that any medication that is broken down by this enzyme CYP3A4 will now stay in its original form much longer. This could be good or bad. An example of a bad effect involves the medication Mevacor® (lovastatin). Mevacor® is broken down by CYP3A4. If it is routinely taken with grapefruit juice, Mevacor will not be broken down as readily and more of the drug will stay in your body longer. If this is not recognized, individuals may run the risk of developing severe adverse effects from Mevacor®, namely rhabdomyolysis, which is a severe breakdown of skeletal muscle that can lead to renal failure.

2. How long between puffs of an inhaler should a person wait?

Always check the package insert from the manufacturer for administration procedures. However, in general, most inhalers recommend to wait one minute between puffs in order to receive maximum benefit of the medication. In some cases synergistic effects between two inhalers can be achieved based on the administration technique, which can include waiting times between puffs.

3. How much time should a person wait between eye drops?

When administering two different eye drops you should wait three to five minutes between the medications. Most manufacturer recommended guidelines recommend waiting at least five minutes. This is difficult to achieve. Sometimes the choice of medications and the scheduled administration times can be altered to ease this process and assure the medications are going to be correctly administered.

References are available upon request.